

AMENDMENT AND RESPONSE

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Serial No.: 10/695,100

Filing Date: 10/28/2003

Attorney Docket No. 100.536US01

Title: PRINTED CIRCUIT BOARD WITH VOID BETWEEN PINS

Amendments to the Claims:

This listing of claims will replace all prior versions and listings of claims in the application:

Listing of claims:

1. (Currently Amended) An article of manufacture, comprising:
a circuit board including at least one insulator layer and a plurality of conductors over which a plurality of signals is carried;
a plurality of terminals coupled to at least a subset of the plurality of conductors;
and
a void formed in the circuit board between at least two terminals;
wherein the terminals include a plurality of holes formed in the circuit board, each hole being plated with a conductive ring that is coupled to at least one of the subset of the plurality conductors;
wherein the void is formed in the circuit board between at least two conductive rings; and
further comprising a connector mounted on the circuit board, the connector having a plurality of connector pins, wherein each of the plurality of connector pins is inserted into a respective one of the plurality of holes.

Claims 2-4. (Canceled)

5. (Original) The article of manufacture of claim 1, wherein the connector includes a plurality of sockets.
6. (Original) The article of manufacture of claim 1, wherein the article of manufacture is a backplane.

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7. (Original) The article of manufacture of claim 1, wherein the circuit board comprises a multi-layer printed circuit board.

8. (Currently Amended) A backplane comprising:
a printed circuit board having at least one insulator layer and a plurality of conductors over which a plurality of signals is carried;
wherein the printed circuit board includes:
a plurality of holes formed in the printed circuit board, each of the plurality of holes having a conductive plating coupled to at least one of the plurality of conductors; and
a void formed in the printed circuit board between at least two of the plurality of holes; and
wherein the printed circuit board further includes a connector mounted on the circuit board, the connector having a plurality of connector pins, wherein each of the plurality of connector pins is inserted into a respective one of the plurality of holes.

9. (Canceled)

10. (Original) The backplane of claim 8, wherein the conductive plating of at least one of the plurality of holes between which the void is formed is coupled to a TNV-3 circuit.

11. (Original) The backplane of claim 10, wherein the TNV-3 circuit is coupled to a twisted-pair telephone line used to provision a digital subscriber line channel.

12. (Original) The backplane of claim 11, wherein the digital subscriber line channel is a high-speed digital subscriber line channel.

13. The backplane of claim 8, wherein the void has an oval shape.

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14. (Original) The backplane of claim 8, further comprising a direct current power input.
15. (Original) The backplane of claim 8, further comprising a filter.
16. (Currently Amended) A telecommunication system comprising:
a chassis having a plurality of slots;
a backplane inserted into the chassis; and
a plurality of cards, each card inserted into one of the plurality of slots;
wherein the backplane comprises:
a backplane circuit board that includes a plurality of backplane conductors over which a plurality of backplane signals is carried; and
a plurality of card interfaces, each card interface including a plurality of holes formed in the backplane circuit board, wherein each hole has a conductive plating coupled to at least one of the plurality of backplane conductors;
wherein each of the plurality of cards comprises:
a card circuit board that includes a plurality of card conductors over which a plurality of card signals is carried; and
a backplane interface that couples that card to one of the plurality of card interfaces of the backplane, wherein the backplane interface includes a plurality of pins and wherein each pin is coupled to at least one card conductor; and
wherein at least one of the card interfaces includes a void formed in the backplane circuit board between at least two of the plurality of holes included in that card interface.
17. (Original) The telecommunication system of claim 16, wherein the conductive plating of at least one of the plurality of holes between which the void is formed is coupled to a TNV-3 circuit.

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18. (Original) The telecommunication system of claim 17, wherein the TNV-3 circuit is coupled to a twisted-pair telephone line used to provision a digital subscriber line channel.

19. (Original) The telecommunication system of claim 18, wherein the digital subscriber line channel is a high-speed digital subscriber line channel.